

***STENELMIS CHERYL*: NEW NAME FOR A WELL-KNOWN RIFFLE BEETLE (COLEOPTERA: ELMIDAE)¹**

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ABSTRACT: Examination of the cleaned holotype of *Stenelmis bicarinata* LeConte 1852 reveals it to be similar to *S. convexula* Sanderson 1938. The name *Stenelmis cheryl* NEW SPECIES is given to the species treated as *S. bicarinata* by most authors. The holotype of *S. cheryl* N. SP. is from Blanco, Texas; numerous paratypes are from Texas and the Mexican state of Coahuila.

Of about 30 known species of *Stenelmis* in North America, *S. bicarinata* LeConte 1852 is among the most venerable; only *S. crenata* (Say) 1824 is older (Brown 1983). Unfortunately, it turns out that most of what has been reported about *S. bicarinata* actually applies to a different species which is not especially close to the real *bicarinata*. The problem surfaced in July, 1980 when I borrowed the holotype of *S. bicarinata* from the Museum of Comparative Zoology at Harvard. With the permission of then-curator A. Newton, I relaxed and cleaned the encrusted specimen ultrasonically, then extracted and examined the genitalia (happily, it was a male). To my surprise, cleaning revealed a very different appearance than that we all associate with *bicarinata*, and the aedeagus further emphasized the difference. The original description is, of course, still valid (LeConte 1852), but for present-day purposes a redescription and figure of the genitalia will be needed. I shall leave that to Kurt Schmude, who is working on a revision of North American species of *Stenelmis*. The true *bicarinata* keys out to *S. convexula* Sanderson in present keys (Brown 1976, Sanderson 1938), but lacks the secondary sexual character of the male that is typical of most North American species of *Stenelmis*—a spinous ridge on the distal portion of the inside of the middle tibia. My tentative estimate of the geographic range of the true *bicarinata* is from Ohio (type locality) and Indiana south to the Gulf coast and west to Oklahoma and Texas.

As for the species generally identified as *S. bicarinata*, I hereby bestow upon it the name *Stenelmis cheryl* NEW SPECIES in honor of Cheryl Barkley Barr, who is doing excellent work on elmids. For a detailed description, see page 679 of Sanderson (1938), for whom I would have named this species if there were not already a *Stenelmis sandersoni*.

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Briefly, *S. cheryl* N. SP. may be characterized as follows: size—length 2.7-3.25 mm; width 1.0-1.25 mm; form and color—elongate, sides of elytra nearly parallel, elytra dark brown to black, each elytron with an entire yellow vitta covering humerus (umbone) and extending inside of sixth interval to near apex; antennae and palpi testaceous to light brown; pronotum with basal tubercle elongate but not carinate; elytra with vittae covering fourth and fifth striae intervals; legs with tarsomere 5 shorter than tarsomeres 1-4 combined.

Holotype: male from the Blanco River at Blanco in Blanco Co., Texas, collected July 27, 1975 by John Mallory Davis.

Paratypes: 31 from the Pedernales River at Johnson City, Blanco Co., TX, collected Aug. 27, 1967 and 13 from the same locality Oct. 5, 1966, all by H.P. Brown; 50 from the San Saba River, Menard Co., TX, May 28, 1969, H.P.B.; 15 from the North Fork of Bosque River at Alexander, Erath Co., TX, May 30, 1969, H.P.B.; 15 from Guadalupe River at Gonzales, Gonzales Co., TX, March 28, 1974, H.P.B.; 44 from Zaragoza, Coahuila, Mexico, May 26, 1969, H.P.B. Holotype deposited in USNM; paratypes in CNCI, FMNH, INHS, LSUC, MCAZ, OSUC, SEMC, SSMH, TAMU, UNAM, USNM, and UWMC (Univ. Wisconsin, Madison; see Brown 1983 for other museum abbreviations).

Geographic distribution as indicated for *S. bicarinata* by Brown (1983); TX: KS OH/ NY PA NJ/ NM TX OK/ Mex. (Coah.). Common to abundant in plains streams.

S. cheryl N. SP. will key out to *S. bicarinata* in available keys (Brown 1976; Sanderson 1938). As explained above, the true *S. bicarinata* will key out to *S. convexula*.

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LITERATURE CITED

- Brown, H.P. 1976. Biota of freshwater ecosystems identification manual no. 6. Aquatic dryopoid beetles (Coleoptera) of the United States. Water Pollution Control Research Series, U.S. Environmental Protection Agency, Cincinnati, Ohio, ix and 82 pp.
- Brown, H.P. 1983. A catalog of the Coleoptera of America north of Mexico. Family: Elmidae. U.S. Dept. of Agriculture, Agriculture Handbook No. 529-50, x and 23 pp.
- LeConte, J.L. 852. Synopsis of the Parnidae of the United States. Proc. Acad. Nat. Sci. Philadelphia 6: 41-45.
- Sanderson, M.W. 1938. A monographic revision of the North American species of *Stenelmis* (Dryopidae: Coleoptera). Univ. Kansas Sci. Bull. 25(22): 635-717.